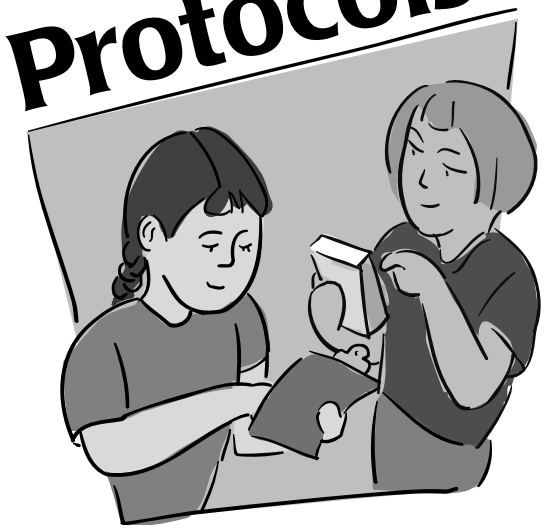
Protocols



Instrument Construction, Site Selection, Site Documentation and Mapping, and Sampling Procedures

Instructions to build some equipment are provided. Instructions are provided on how to select, describe and map a hydrology site. Students are shown how to take a water sample to test.

Water Transparency Protocol

Students will first measure water transparency at their undisturbed study site using a transparency tube or Secchi disk.

Water Temperature Protocol

Students will measure the temperature of water.

Dissolved Oxygen Protocol

Students will measure dissolved oxygen in the water at their site using a dissolved oxygen test kit or probe.

Electrical Conductivity Protocol

Students will measure electrical conductivity of water at freshwater hydrology sites.

Salinity Protocol

Students will measure the salinity of a salty or brackish water sample using a hydrometer and thermometer.

* See the full e-guide version of the *Teacher's Guide* available on the GLOBE Web site and CD-ROM.

pH Protocol

Students will measure the pH of water using either pH paper or a pH meter.

Alkalinity Protocol

Students will measure the alkalinity of water using an alkalinity test kit.

Nitrate Protocol

Students will measure the nitrate-nitrogen content of water using a nitrate test kit.

*Freshwater Macroinvertebrate Protocol**

Students will collect, identify, and count macroinvertebrates at freshwater hydrology sites.

*Marine Invertebrate Protocol**

Students estimate the densities of certain animal species found in the intertidal zone at coastal sites.

*Salinity Titration Protocol**

Students will measure the salinity of saltwater using a salinity titration kit.

* See the full e-guide version of the *Teacher's Guide* available on the GLOBE Web site and CD-ROM.